

WHAT IS CLAIMED IS:

1. An information processing system including a first information processing apparatus connected with a first network and also connected with a second network via an address translator for addresses translation, a second information processing apparatus that performs communication with the first information processing apparatus, and a third information processing apparatus connected with the second network, for managing communication between the first information processing apparatus and the second information processing apparatus, wherein

the first information processing apparatus requests the third information processing apparatus to provide information associated with connection of the second information processing apparatus;

the third information processing apparatus provides information associated with the connection of the second information processing apparatus to the first information processing apparatus;

the first information processing apparatus determines, on the basis of the information provided by the third information processing apparatus, whether the second information processing apparatus is connected with the same network as that with which the first information processing

apparatus is connected; and

the first information processing apparatus performs communication with the second information processing apparatus in such a manner that if the second information processing apparatus is determined to be connected with the same network as that with which the first information processing apparatus is connected, communication with the second information processing apparatus is performed on the basis of an address defined on the first network, while if the second information processing apparatus is determined not to be connected with the same network as that with which the first information processing apparatus is connected, communication with the second information processing apparatus is performed on the basis of an address defined on the second network.

2. An information processing system according to claim 1, wherein

the first information processing apparatus requests the third information processing apparatus to provide, as the information associated with the connection, an address, defined on the second network, of the second information processing apparatus;

the third information processing apparatus provides, as the information associated with the connection, the address,

defined on the second network, of the second information processing apparatus; and

the first information processing apparatus determines, on the basis of the address, defined on the second network, of the second information processing apparatus, whether the second information processing apparatus is connected with the same network as that with which the first information processing apparatus is connected.

3. An information processing system according to claim 1, wherein

the first information processing apparatus requests, as the information associated with connection, information indicating whether the second information processing apparatus and the first information processing apparatus are connected with the same network;

the third information processing apparatus examines whether the second information processing apparatus and the first information processing apparatus are connected with the same network and the third information processing apparatus provides the result of the examination as the information associated with the connection; and

the first information processing apparatus determines, on the basis of the received information indicating the result of the examination performed by the third information

processing apparatus, whether the second information processing apparatus is connected with the same network as that with which the first information processing apparatus is connected.

4. An information processing system according to claim 3, wherein the third information processing apparatus examines whether the first information processing apparatus and the second information processing apparatus are connected with the same network, on the basis of addresses, defined on the second network, of the first information processing apparatus and the second information processing apparatus.

5. An information processing system according to claim 3, wherein the third information processing apparatus examines whether the second information processing apparatus and the first information processing apparatus are connected with the same address translator to examine whether the second information processing apparatus and the first information processing apparatus are connected with the same network.

6. An information processing system according to claim 5, wherein the third information processing apparatus

examines whether the second information processing apparatus and the first information processing apparatus have the same address defined on the second network to examine whether the second information processing apparatus and the first information processing apparatus are connected with the same network.

7. An information processing method for an information processing system including a first information processing apparatus connected with a first network and also connected with a second network via an address translator for addresses translation, a second information processing apparatus that performs communication with the first information processing apparatus, and, a third information processing apparatus connected with the second network, for managing communication between the first information processing apparatus and the second information processing apparatus, wherein

the first information processing apparatus requests the third information processing apparatus to provide information associated with connection of the second information processing apparatus;

the third information processing apparatus provides information associated with the connection of the second information processing apparatus to the first information

processing apparatus;

the first information processing apparatus determines, on the basis of the information provided by the third information processing apparatus, whether the second information processing apparatus is connected with the same network as that with which the first information processing apparatus is connected; and

the first information processing apparatus performs communication with the second information processing apparatus in such a manner that if the second information processing apparatus is determined to be connected with the same network as that with which the first information processing apparatus is connected, communication with the second information processing apparatus is performed on the basis of an address defined on the first network, while if the second information processing apparatus is determined not to be connected with the same network as that with which the first information processing apparatus is connected, communication with the second information processing apparatus is performed on the basis of an address defined on the second network.

8. An information processing apparatus that performs communication with another information processing apparatus, the information processing apparatus being connected with a

first network and also connected, via an address translator for addresses translation, with a second network with which a sever is connected, the information processing apparatus comprising

request means for requesting the server to provide information associated with connection of said another information processing apparatus;

reception means for receiving information associated with the connection of said another information processing apparatus from the server; and

communication means for performing communication with said another information processing apparatus in such a manner that the communication means determines, on the basis of the information received from the server, whether said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, and if it is determined that said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, the communication means performs communication with said another information processing apparatus on the basis of an address defined on the first network, while if it is determined that said another information processing apparatus is not connected with the same network as that with which the

information processing apparatus is connected, the communication means performs communication with said another information processing apparatus on the basis of an address defined on the second network.

9. An information processing apparatus according to claim 8, wherein the request means requests, as the information associated with connection, an address, defined on the second network, of said another information processing apparatus; and

the communication means determines, on the basis of the address, defined on the second network, of said another information processing apparatus, whether said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected.

10. An information processing apparatus according to claim 8, wherein

the request means requests, as the information associated with connection, information indicating whether said another information processing apparatus and the information processing apparatus are connected with the same network; and

the communication means determines, on the basis of the



information supplied from the server, whether said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected.

11. An information processing apparatus according to claim 10, wherein the request means requests, as the information indicating whether said another information processing apparatus and the information processing apparatus are connected with the same network, information indicating whether said another information processing apparatus and the information processing apparatus are connected with the same address translator.

12. An information processing apparatus according to claim 11, wherein the request means requests, as the information indicating whether said another information processing apparatus and the information processing apparatus are connected with the same address translator, information indicating whether said another information processing apparatus and the information processing apparatus have the same address.

13. An information processing apparatus according to claim 8, wherein

the first network is a LAN;  
the second network is the Internet;  
the address on the first network is a local address;

and

and the address on the second network is a global  
address.

14. An information processing apparatus according to claim 8, wherein if the information received from the server indicates that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, the request means further requests the server to provide an address, defined on the second network, of the information processing apparatus.

15. An information processing apparatus according to claim 8, wherein if it is determined that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, the communication means transmits the address, defined on the second network, of the information processing apparatus to said another information processing apparatus via the server and receives the address, defined on the second network, of said another information

processing apparatus via the server.

16. An information processing apparatus according to claim 8, wherein if it is determined that said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, the communication means transmits the address, defined on the first network, of the information processing apparatus to said another information processing apparatus via the server and receives the address, defined on the first network, of said another information processing apparatus via the server.

17. An information processing method for an information processing apparatus that performs communication with another information processing apparatus, the information processing apparatus being connected with a first network and also connected, via an address translator for addresses translation, with a second network with which a sever is connected, the information processing method comprising the steps of:

requesting the server to provide information associated with connection of said another information processing apparatus;

receiving information associated with the connection of

said another information processing apparatus from the server; and

performing communication with said another information processing apparatus in such a manner that determination as to whether said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected is made on the basis of the information received from the server, and if it is determined that said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, communication with said another information processing apparatus is performed on the basis of an address defined on the first network, while if it is determined that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, communication with said another information processing apparatus is performed on the basis of an address defined on the second network.

18. A program for causing a computer to perform processing associated with an information processing apparatus that performs communication with another information processing apparatus, the information processing apparatus being connected with a first network and also

connected, via an address translator for addresses translation, with a second network with which a sever is connected, the processing comprising the steps of:

requesting the server to provide information associated with connection of said another information processing apparatus;

receiving information associated with the connection of said another information processing apparatus from the server; and

performing communication with said another information processing apparatus in such a manner that determination as to whether said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected is made on the basis of the information received from the server, and if it is determined that said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, communication with said another information processing apparatus is performed on the basis of an address defined on the first network, while if it is determined that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, communication with said another information processing apparatus is performed on the

basis of an address defined on the second network.

19. An information processing apparatus connected with a first network and a second network, for managing communication between a first apparatus and a second apparatus, the first apparatus being connected with the second network via an address translator for address translation, the information processing apparatus comprising:

reception means for receiving, from the first apparatus, a request for determination as to whether the second apparatus is connected with the same network as that with which the first apparatus is connected;

examination means for examining whether the second apparatus is connected with the same network as that with which the first apparatus is connected; and

informing means for informing the first apparatus of the result of the examination performed by the examination means.

20. An information processing apparatus according to claim 19, wherein the examination means examines whether the first apparatus and the second apparatus are connected with the same address translator to examine whether the second apparatus is connected with the same network as that with

which the first apparatus is connected.

21. An information processing apparatus according to claim 20, wherein the examination means examines whether the first apparatus and the second apparatus have the same address to examine whether the first apparatus and the second apparatus are connected with the same address translator.

22. An information processing apparatus according to claim 19, wherein

the first network is a LAN;

the second network is the Internet;

the address on the first network is a local address;

and

and the address on the second network is a global address.

23. An information processing apparatus according to claim 19, wherein the informing means transmits 1-bit data indicating the result of the examination performed by the examination means to the first apparatus.

24. An information processing method, in an information processing apparatus connected with a first network and a second network, for managing communication

between a first apparatus and a second apparatus, the first apparatus being connected with the second network via an address translator for address transformation, the information processing method comprising the steps of:

receiving, from the first apparatus, a request for determination as to whether the second apparatus is connected with the same network as that with which the first apparatus is connected;

examining whether the second apparatus is connected with the same network as that with which the first apparatus is connected; and,

informing the first apparatus of the result of the examination performed in the examination step.

25. A program for causing a computer to perform processing associated with an information processing apparatus connected with a first network and a second network, for managing communication between a first apparatus and a second apparatus, the first apparatus being connected with the second network via an address translator for address transformation, the processing comprising the steps of:

receiving, from the first apparatus, a request for determination as to whether the second apparatus is connected with the same network as that with which the first



apparatus is connected;

    examining whether the second apparatus is connected  
with the same network as that with which the first apparatus  
is connected; and,

    informing the first apparatus of the result of the  
examination performed in the examination step.